08-03-06

Attorney's Docket No.: 17601-045001 / 067083.0288

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

plicant: Joseph A. Zupanick

Art Unit : 3672

Serial No.: 10/788,694

Examiner: Daniel P. Stephenson

Filed

: February 27, 2004

Conf. No.: 6999

Title

: SYSTEM AND METHOD FOR MULTIPLE WELLS FROM A COMMON

SURFACE LOCATION

## MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Applicant requests consideration of the references listed on the attached PTO-1449 form. Under 37 C.F.R. § 1.98 (a)(2)(ii), only copies of foreign patent documents and/or non-patent literature are enclosed. Copies of any listed U.S. patents, U.S. patent applications or U.S. patent application publications can be provided upon request. A copy of a communication from a foreign patent office in a related application is also enclosed.

This statement is being filed within one month of the filing date of the Request for Continued Examination (RCE) filed July 21, 2006 and before the first office action on the merits. No fees are believed due. However, please apply any deficiencies or any other required fees or any credits to deposit account 06-1050, referencing the attorney docket number shown above.

Respectfully submitted,

Date:	8-2-04	Joshua A Lusurd
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U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 17601-045001

Application No. 10/788,694

Information Disclosure Statement
by Applicant

(Use several sheets if necessary)

Applicant Joseph A. Zupanick

Filing Date February 27, 2004

Group Art Unit 3672

**U.S. Patent Documents** Filing Date **Publication** Examiner Desig. Document If Appropriate Patentee Class Subclass Initial ID Number Date 08/29/1972 Marshall et al. 3,687,204 A1 Ueber et al. A2 3,759,328 09/18/1973 11/02/1982 Savins **A3** 4,356,866 Wood et al. 4,396,075 08/02/1983 A4 03/15/1988 Marshall et al. Α5 Re. 32,623 **A6** 5,207,271 05/04/1993 Sanchez et al. **A7** 5,520,252 05/28/1996 McNair Α8 5,664,911 09/09/1997 Bridges et al. Hunt et al. **A9** 5,733,067 03/31/1998 Berger et al. A10 6,581,455 B1 06/24/2003 Burgess et al. A11 6,581,685 B2 06/24/2003 11/02/2004 Gondouin A12 RE38,642 E Paluch et al. 12/25/2003 A13 2003/0234120 A1 A14 2005/0257962 A1 11/24/2005 Zupanick 05/11/2006 A15 2006/0096755 A1 Zupanic,

	Foreig	n Patent Doo	uments or P	ublished Foreign I	atent /	Application	ns	
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Trans Yes	lation No
	B1	UA 37,720 A	05/15/2001	Ukraine			Spec Only	

	Other Documents (include Author, Title, Date, and Place of Publication)				
Examiner	Desig.				
Initial	ID	Document			
	Cl	P.C. Thakur and W.N. Poundstone, "Horizontal Drilling Technology for Advance Degasification," Society of Mining Engineers of AIME, Preprint Number 79-113, For presentation at the 1979 AIME Annual Meeting, New Orleans, Lousiana, February 18-22, 1979, Engineering Societies Library stamp dated February 5, 1980, 11 pages.			
-	C2	Notification Concerning Transmittal of Copy of International Preliminary Report on Patentability (1 page), International Preliminary Report on Patentability (1 page), and Written Opinion of the International Searching Authority (5 pages) mailed February 9, 2006 for International Application No. PCT/US2004/024518			

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Substitute Form PTO-1449 U.S. Department of Commerce (Modified) Patent and Trademark Office		Attorney's Docket No. 17601-045001	Application No. 10/788,694
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	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner Initial	Desig. ID	Document
IIIIIai	C3	Wang Weiping, "Trend of Drilling Technology Abroad," Petroleum Drilling and Production Technology, 1995 (Volume 17), Issue 6, www.cnki.net, 8 pages, translation, original in Chinese
	C4	Tver, David, The Petroleum Dictionary, 1980, page 221.
	C5	Rennick, et al., "Demonstration of Safety Plugging of Oil Wells Penetrating Appalachian Coal Mines," Bureau of Mines Coal Mine Health and Safety Research Program, Technical Progress Report – 56, U.S. Department of the Interior, July 1972, 25 pages
	C6	George N. Aul and Joseph Cervik, "Grouting Horizontal Drainage Holes in Coalbeds," RI 8375, Bureau of Mines Report of Investigations, U.S. Department of the Interior, 1979, 21 pages
	C7	Paul J. Componation, et al., "Cleaning Out, Sealing and Mining Through Wells Penetrating Areas of Active Coal Mines in Northern West Virginia," MESA Information Report 1052, U.S. Department of the Interior, 1977, 26 pages
	C8	George S. Rice, "Notes on the Prevention of Dust and Gas Explosions in Coal Mines," Technical Paper 56, Bureau of Mines, Department of the Interior, copyright 1913, 12 pages
	C9	George S. Rice, et al., "Oil and Gas Wells Through Workable Coal Beds," Bulletin 65, Petroleum Technology 7, Bureau of Mines, Department of the Interior, copyright 1913, 54 pages
	C10	Notification of Transmittal of the International Preliminary Report on Patentability (1 page) and International Preliminary Report on Patentability (8 pages) for International Application No. PCT/US2005/002162 mailed May 3, 2006
	C11	D. Nathan Meehan, "Technology Vital For Horizontal Well Success," OIL & GAS JOURNAL, December 11, 1995, 8 pages
	C12	B.A. Tarr, A.F. Kuckes and M.V. Ac, "Use of New Ranging Tool to Position a Vertical Well Adjacent to a Horizontal Well," SPE DRILLING ENGINEERING, June 1992, 7 pages
	C13	William J. McDonald, Ph.D., John H. Cohen, and C. Mel Hightower, "New Lightweight Fluids for Underbalanced Drilling," believed to be on or about 1998, 10 pages
	C14	Philip C. Crouse, "Application and Needs for Advanced Multilateral Technologies and Strategies," Website: <a href="www.netl.doe.gov/publications/proceedings/97/97ng/ng97">www.netl.doe.gov/publications/proceedings/97/97ng/ng97</a> pdf/NG2-5.pdf; Believed to be on or about 1997, 9 pages
	C15	Dan Themig, "Multi-Laterals Providing New Options," THE AMERICAN OIL & GAS REPORTER, V. 39, No. 7, July 1996, 4 pages
	C16	Daniel D. Gleltman, "Integrated Underbalanced Directional Drilling System," Interim Report for Period of Performance 10/1/95 – 2/14/96, DOE FETC Contract DE-AC21-95MC31103, March 1997, 23 pages
	C17	J.D. Gallivan, N.R. Hewitt, M. Olsen, J.M. Peden, D. Tehrani and A.A.P. Tweedie, "Quantifying the Benefits of Multi-Lateral Producing Wells," SPE 30441, Society of Petroleum Engineers, Inc., Copyright 1995, 7 pages
	C18	C.A. Ehlig-Economides, G.R. Mowat and C. Corbett, "Techniques for Multibranch Well Trajectory Design in the Context of a Three-Dimensional Reservoir Model," SPE 35505, Society of Petroleum Engineers, Copyright 1996, 8 pages
-	C19	Stephen R. Dittoe, Albertus Retnanto, and Michael J. Economides, "An Analysis of Reserves Enhancement in Petroleum Reservoirs with Horizontal and Multi-Lateral Wells," SPE 37037, Society of Petroleum Engineers, Copyright 1996, 9 pages

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Substitute Form PTO-1449  (Modified)  U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. Application No. 17601-045001 10/788,694		
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	Other D	ocuments (include Author, Title, Date, and Place of Publication)
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·	C20	D.L. Boreck and M.T. Strever, "Conservation of Methane from Colorado's Mined/Minable Coal Beds: A Feasibility Study," Open-File Report 80-5, Colorado Geological Survey, Department of Natural Resources, Denver, Colorado, October 1980, 101 pages
	C21	B.G. kta and T. Ertekin, "Implementation of a Local Grid Refinement Technique in Modeling Slanted, Undulating Horizontal and Multi-Lateral Wells," SPE 56624, Society of Petroleum Engineers, Copyright 1999, 10 pages
	C22	W.H. Leach Jr., "New Technology for CBM Production," Oil and Gas Investor, Opportunities in Coalbed Methane, December 2002, 6 pages
	C23	David Wagman, "CBM Investors Keep Their Guard Up," Oil and Gas Investor, Opportunities in Coalbed Methane, December 2002, 5 pages
	C24	Stephen D. Schwochow, "CBM: Coming to a Basin Near You," Oil and Gas Investor, Opportunities in Coalbed Methane, December 2002, 7 pages
	C25	"White Paper: Guidebook on Coalbed Methane Drainage for Underground Coal Mines," paper prepared under U.S. Environmental Protection Agency Cooperative Agreement No. CX824467-01-0 with The Pennsylvania State University by Jan M. Mutmansky, April 1999, 50 pages
	C26	M.G. Zabetakis, Maurice Deul, and M.L. Skow, "Methane Control in United States Coal Mines – 1972," Information Circular 8600, United States Department of the Interior, Bureau of Mines Information Circular/1973, 26 pages
	C27	B. Goktas, "A Comparative Analysis of the Production Characteristics of Cavity Completions and Hydraulic Fractures in Coalbed Methane Reservoirs," Society of Petroleum Engineers, SPE 55600, Copyright 1999, 10 pages
	C28	William P. Diamond and David C. Oyler, "Drilling Long Horizontal Coalbed Methane Drainage Holes from a Directional Surface Borehole," Society of Petroleum Engineers, SPE/DOE 8968, 1980, 6 pages
	C29	Turgay Ertekin, Wonmo Sung, and Fred C. Schwerer, "Production Performance Analysis of Horizontal Drainage Wells for the Degasification of Coal Seams," JOURNAL OF PETROLEUM TECHNOLOGY, May 1988, 8 pages
	C30	Patrick B. Tracy, "Lateral Drilling Technology Tested on UCG Project," IADC/SPE 17237, IADC/SPE Drilling Conference, Copyright 1988, 10 pages
	C31	P.S. Sarkar and J.M. Rajtar, "Transient Well Testing of Coalbed Methane Reservoirs With Horizontal Wells," SPE 27681, Society of Petroleum Engineers, Copyright 1994, 9 pages
	C32	R.A. Schraufnagel, D.G. Hill and R.A. McBane, "Coalbed Methane – A Decade of Success," SPE 28581, Society of Petroleum Engineers, Copyright 1994, 14 pages
	C33	J.R. Kelafant, C.M. Boyer, and M.D. Zuber, "Production Potential and Strategies for Coalbed Methane in the Central Appalachian Basin," SPE 18550, Society of Petroleum Engineers, Copyright 1988, 8 pages
	C34	Ian Palmer, John McLennan, and Mike Kutas, "Completions and Stimulations for Coalbed Methane Wells." SPE 30012, Society of Petroleum Engineers, Copyright 1995, 13 pages
	C35	John E. Jochen and Bradley M. Robinson, "Survey of Horizontal Gas Well Activity," SPE 35639, Society of Petroleum Engineers, Copyright 1996, 5 pages
-	C36	R.G. Jeffrey, J.R. Enever, J.H. Wood, J.P. Connors, S.K. Choi, K.T.A. Meaney, D.A. Casey, and R.A. Koenig, "A Stimulation and Production Experiment in a Vertical Coal Seam Gas Drainage Well," SPE 36982, Society of Petroleum Engineers, Copyright 1996, 7 pages

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	C37	Matt C. Rowan and Michael J. Whims, "Multilateral Well Enhances Gas Storage Deliverability," OIL & GAS JOURNAL, December 25, 1995, 4 pages
	C38	Dan Themig, "Planning and Evaluation are Crucial to Multilateral Wells," Petroleum Engineer International, January 1996, 3 pages
	C39	Larry Comeau, Randy Pustanyk, Ray Smith and Ian Gilles, "Lateral Tie-Back System Increases Reservoir Exposure," WORLD OIL, July 1995, 5 pages
	C40	J. Smith, M.J. Economides and T.P. Frick, "Reducing Economic Risk in Areally Anisotropic Formations With Multiple-Lateral Horizontal Wells," SPE 30647, Society of Petroleum Engineers, Copyright 1995, 14 pages
	C41	Scott Thomson, Andrew Lukas, and Duncan McDonald, "Maximising Coal Seam Methane Extraction through Advanced Drilling Technology," Lucas, Technical Paper, Second Annual Australian Coal Seam & Mine Methane Conference, February 19-20, 2003, 14 pages
	C42	William P. Diamond and David C. Oyler, "Directional Drilling for Coalbed Degasification in Advance of Mining," Proceedings of the 2 <sup>nd</sup> Annual Methane Recovery from Coalbeds Symposium, April 18-20, 1979, 17 pages
	C43	John L. Stalder, Gregory D. York, Robert J. Kopper, Carl M. Curtis and Tony L. Cole, and Jeffrey H. Copley, "Multilateral-Horizontal Wells Increase Rate and Lower Cost Per Barrel in the Zuata Field, Faja, Venezuela," SPE 69700, Society of Petroleum Engineers, Copyright 2001, 9 pages
	C44	Brent Lowson, "Multilateral-Well Planning," Synopsis of SPE 39245, JPT, July 1998, 4 pages
	C45	A. Njaerheim, R. Rovde, E. Kvale, S.A. Kvamme, and H.M. Bjoerneli, "Multilateral Well in Low- Productivity Zones," Synopsis of SPE 39356, JPT, July 1998, 4 pages
	C46	S.W. Bokhari, A.J. Hatch, A. Kyei, and O.C. Werngren, "Improved Recovery from Tight Gas Sands with Multilateral Drilling," Synopsis of SPE 38629, JPT, July 1998, 4 pages
	C47	S.K. Vij, S.L. Narasaiah, Anup Walia, and Gyan Singh, "Adopting Multilateral Technology," Synopsis of SPE 39509, JPT, July 1998, 3 pages
	C48	William P. Diamond, David C. Oyler, and Herbert H. Fields, "Directionally Controlled Drilling to Horizontally Intercept Selected Strata, Upper Freeport Coalbed, Green County, PA," Bureau of Mines Report of Investigations/1977, RI 8231, 1977, 25 pages
	C49	David C. Oyler, William P. Diamond, and Paul W. Jeran, "Directional Drilling for Coalbed Degasification," Program Goals and Progress in 1978, Bureau of Mines Report of Investigations/1979, RI 8380, 1979, 17 pages
	C50	United States Department of the Interior, "Methane Control Research: Summary of Results, 1964-80," Bureau of Mines Bulletin, Bulletin 687, 1988, 188 pages
	C51	EPA, "Identifying Opportunities for Methane Recovery at U.S. Coal Mines: Profiles of Selected Gassy Underground Coal Mines 1997-2001," EPA Publication EPA 430-K-04-003, July 2004, 202 pages
	C52	Marshall DeLuca, "Multilateral Completions on the Verge of Mainstream," OFFSHORE, April 1997, 2 pages
•	C53	Bob Williams, "Operators Unlocking North Slope's Viscous Oil Commerciality," OIL & GAS JOURNAL, August 6, 2001, 5 pages
-	C54	James P. Oberkircher, "The Economic Viability of Multilateral Wells," IADC/SPE 59202, Society of Petroleum Engineers, Copyright 2000, 10 pages

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		February 27, 2004	3672

	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner Initial	Desig. ID	Document
	C55	Jim Oberkircher, "What is the Future of Multilateral Technology?," WORLD OIL, June 2001, 3 pages
	C56	Rick Von Flatern, "Operators Are Ready For More Sophisticated Multilateral Well Technology," Petroleum Engineer International, January 1996, 4 pages
	C57	Kyle S. Graves, "Multiple Horizontal Drainholes Can Improve Production," OIL & GAS JOURNAL, OGJ Special, February 14, 1994, 5 pages
	C58	Guntis, Moritis, "Sincor Nears Upgrading, Plateau Production Phase," OIL & GAS JOURNAL, October 29, 2001, 1 page
	C59	Guntis Moritis, "Smart, Intelligent Wells," OIL & GAS JOURNAL, April 2, 2001, 6 pages
	C60	Craig Coull, "Intelligent Completion Provides Savings for Snorre TLP," OIL & GAS JOURNAL, April 2, 2001, 2 pages
	C61	D.T. Vo and M.V. Madden, "Performance Evaluation of Trilateral Wells: Field Examples," SPE 28376, Society of Petroleum Engineers, copyright 1994, 16 pages
	C62	Dean E. Gaddy, "Pioneering Work, Economic Factors Provide Insights Into Russian Drilling Technology," OIL & GAS JOURNAL, July 6, 1998, 3 pages
	C63	"Optimal Multilateral-Well Design for a Heavy-Oil Reservoir," Synopsis of SPE 37554 by D.W. Boardman, JPT, July 1997, 3 pages
	C64	"Multilateral-Well Completion-System Advances," Synopsis of SPE 39125 by J.R. Longbottom et al., JPT, July 1997, 3 pages
	C65	"Optimal Multilateral/Multibranch Completions," Synopsis of SPE 38033 by Hironori Sugiyama et al., JPT, July 1997, 5 pages
	C66	"Multilateral Experiences: IDD El Shargi North Dome Field (QATAR)," Synopsis of SPE 37675 by J.R. Scofield et al., JPT, July 1997, 3 pages
	C67	"Moving Toward the 'Intelligent Well'," Synopsis of SPE 39126 by Clark E. Robison, JPT, July 1997, 3 pages
	C68	"Short-Radius Laterals: An Operator's Experience," Synopsis of SPE 37493 by C. Ellis et al., JPT, July 1997, 3 pages
	C69	"Analyzing a Multilateral-Well Failure," Synopsis of SPE 38268 by A. Ray Brister, JPT, July 1997, 3 pages
	C70	"A New Concept for Multibranch Technology," Synopsis of SPE 39123 by Mark Stracke et al., JPT, July 1997, 3 pages
	C71	"Classification Clarifies Multilateral Options," Synopsis of SPE 38493 by C. Hogg, JPT, July 1997, 3 pages
	C72	"Infill Development With Multilateral-Well Technology," Synopsis of SPE 38030 by Sau-Wai Wong et al., JPT, July 1997, 3 pages
	C73	Brad Califf and Denny Kerr, "UPRC Completes First Quad-Lateral Well," PETROLEUM ENGINEER INTERNATIONAL, September 1993, 4 pages
	C74	Jack Winton, "Use of Multi-lateral Wells to Access Marginal Reservoirs," OFFSHORE, February 1999, 3 pages
	C75	J.R. Salas, P.J. Clifford and D.P. Jenkins, "Brief: Multilateral Well Performance Prediction," JPT, September 1996, 3 pages
	C76	Mike R. Chambers, "Multilateral Technology Gains Broader Acceptance," OIL & GAS JOURNAL, November 23, 1998, 5 pages

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	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner	Desig.	Document
Initial	C77	S. Ikeda, T. Takeuchi, and P.C. Crouse, "An Investigative Study on Horizontal Well and Extended Reach Technologies With Reported Problem Areas and Operational Practice in North America and Europe," IADC/SPE 35054, Society of Petroleum Engineers, Copyright 1996, 8 pages
	C78	Greg Nazzal, "Extended-Reach Wells Tap Outlying Reserves," WORLD OIL, March 1993, 8 pages
	C79	Bambang Tjondrodiputro, Harry Eddyarso and Kim Jones, "How ARCO Drills High-Angle Wells Offshore Indonesia," WORLD OIL, March 1993, 11 pages
	C80	S. Hovda, et al., "World's First Application of a Multilateral System Combining a Cased and Cemented Junction With Fullbore Access to Both Laterals," SPE 36488, Society of Petroleum Engineers, Copyright 1996, 15 pages
	C81	Robert A. Gardes, "Micro-annulus Under-balanced Drilling of Multilateral Wells," Offshore, May 1996, 4 pages
	C82	Brent Lowson, "Phillips Multilateral Features Several Firsts for North Sea," Offshore, February 1997, 2 pages
	C83	J.R. Scofield, B. Laney and P. Woodard, "Field Experience With Multi-Laterals in the Idd El Shargi North Dome Field (Qatar)," SPE/IADC 37675, Society of Petroleum Engineers, Copyright 1997, 11 pages
	C84	Jeremy Beckman, "Coiled Tubing, Reamer Shoes Push Through Barriers in North Sea Wells," OFFSHORE, February 1997, 1 page
	C85	C.H. Fleming, "Comparing Performance of Horizontal Versus Vertical Wells," WORLD OIL, March 1993, 7 pages
	C86	Larry A. Cress and Stephen W. Miller, "Dual Horizontal Extension Drilled Using Retrievable Whipstock," WORLD OIL, June 1993, 9 pages
	C87	Guntis Moritis, "Heavy Oil Expansions Gather Momentum Worldwide," OIL & GAS JOURNAL, August 14, 1995, 6 pages
	C88	K.W. Hart and L.V. Jankowski, "The Application of Slant Hole Drilling in Development of Shallow Heavy Oil Deposits," THE JOURNAL OF CANADIAN PETROLEUM TECHNOLOGY, January-February 1984, Montreal, 6 pages
	C89	Jeff Smith and Bob Edwards, "Slant Rigs Offer Big Payoffs in Shallow Drilling," OIL & GAS JOURNAL, March 30, 1992, 3 pages
	C90	Ravil Gabdullinovich Salikhov, Evgeny Fedyorovich Dubrovin, and Vladimir Vladimirovich Sledkov, "Cluster and Dual-Lateral Drilling Technologies Optimize Russian Well Production," OIL & GAS JOURNAL, November 24, 1997, 7 pages
	C91	Dean E. Gaddy, "Inland Barge to Allow Cluster Drilling in Nigeria," OIL & GAS JOURNAL, August 30, 1999, 7 pages
- "	C92	Cliff Hogg, "Comparison of Multilateral Completion Scenarios and Their Application," SPE 38493, Society of Petroleum Engineers, Copyright 1997, 11 pages
•	C93	S.W. Bokhari, A.J. Hatch, A. Kyei and O.C. Wemgren, "Improved Recoveries in the Pickerill Field from Multilateral Drilling into Tight Gas Sands," SPE 38629, Society of Petroleum Engineers, Copyright 1997, 15 pages
-	C94	J.R. Longbottom, Dana Dale, Kevin Waddell, Scott Bruha, and John Roberts, "Development, Testing, and Field Case Histories of Multilateral Well Completion Systems," SPE 36994, Society of Petroleum Engineers, Copyright 1996, 16 pages

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Examiner	Desig.	
Initial	ID	Document
		E.J. Antczak, D.G.L. Smith, D.L. Roberts, Brent Lowson, and Robert Norris, "Implementation of an
	C95	Advanced Multi-Lateral System With Coiled Tubing Accessibility," SPE/IADC 37673, Society of
		Petroleum Engineers, Copyright 1997, 9 pages
	C96	H. Azoba, O. Akinmoladun, H. Rothenhofer, D. Kent and N. Nawfal, "World Record Dual- and Tri-
	C90	lateral Wells," SPE/IADC 39240, Society of Petroleum Engineers, Copyright 1997, 6 pages
		R.W. Taylor and Rick Russell, "Case Histories: Drilling and Completing Multilateral Horizontal
	C97	Wells in the Middle East," SPE/IADC 39243, Society of Petroleum Engineers, Copyright 1997, 14
		pages
	C98	D.K. Triolo and R.A. Mathes, "Review of a Multi-Lateral Drilling and Stimulation Program,"
	C96	SPE/IADC 39242, copyright 1997, Society of Petroleum Engineers, 13 pages
		John H. Perry, Leonard J. Prosser, Jr., Joseph Cervik, "Methane Drainage from the Mary Lee
	C99	Coalbed, Alabama, Using Horizontal Drilling Techniques," SPE/DOE 8967, Society of Petroleum
		Engineers, May 18, 1980, 6 pages
		Gerald L. Finfinger, Leonard J. Prosser, and Joseph Cervik, "Influence of Coalbed Characteristics
	C100	and Geology on Methane Drainage," SPE/DOE 8964, Society of Petroleum Engineers, May 18,
		1980, 6 pages
		Hilmer Von Schonfeldt, B. Rao Pothini, George N. Aul and Roger L. Henderson, "Production and
	C101	Utilization of Coalbed Methane Gas in Island Creek Coal Company Mines," SPE/DOE 10817,
		Society of Petroleum Engineers, May 16, 1982, 10 pages
	C102	Joseph Cervik, H.H. Fields, and G.N. Aul, "Rotary Drilling Holes in Coalbeds for Degasification,"
	C102	RI 8097, Bureau of Mines Reporting of Investigations, 1975, 26 pages
	C102	D.G. Masszi and A.A. Kahil, "Coal Demethanation Principles and Field Experience," THE JOURNAL
	C103	OF CANADIAN PETROLEUM TECHNOLOGY, July-August 1982, 4 pages
	C104	Tobias W. Goodman, Joseph Cervik, and George N. Aul, "Degasification Study From an Air Shaft
	C104	in the Beckley Coalbed," RI 8675, Bureau of Mines Report of Investigations, 1982, 23 pages
	C105	P.C. Thakur and H.D. Dahl, "Horizontal Drilling - A Tool for Improved Productivity," MINING
	C105	ENGINEERING, March 1982, 3 pages
	C106	P.C. Thakur and J.G. Davis II, "How to Plan for Methane Control in Underground Coal Mines,"
	C106	MINING ENGINEERING, October 1977, 5 pages
	C107	A.B. Yost II and B.H. Javins, "Overview of Appalachian Basin High-Angle and Horizontal Air and
	C107	Mud Drilling," SPE 23445, Society of Petroleum Engineers, October 22, 1991, 14 pages
	C100	Pramod C. Thakur, "Methane Flow in the Pittsburgh Coal Seam," Third International Mine
	C108	Ventilation Congress, England, U.K., June 13-19, 1984, 17 pages
		Chapter 10 by Pramod C. Thakur, "Methane Control for Longwall Gobs," LONGWALL-SHORTWALL
	C109	MINING, STATE OF THE ART by R.V. Ramani, published by New York: Society of Mining Engineers
		of the American Institute of Mining, Metallurgical, and Petroleum Engineers, 1981, 7 pages
		Pramod C. Thakur, Stephen D. Lauer, and Joseph Cervik, "Methane Drainge With Cross-Measure
	0110	Boreholes on a Retreat Longwall Face," Preprint No. 83-398, Society of Mining Engineers of
	C110	AIME, for presentation at the SME-AIME Fall Meeting and Exhibit, Salt Lake City, Utah, October
•		19-21, 1983, 14 pages
	0:11	Warren F. Dobson and Daniel R. Seelye, "Mining Technology Assists Oil Recovery from Wyoming
	C111	Field," SPE 9418, Society of Petroleum Engineers of AIME, Copyright 1980, 7 pages

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if no next communication to applicant.	t in conformance and not considered. Include copy of this form with

Substitute Form PTO-1449  (Modified)  U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. 17601-045001	Application No. 10/788,694
Information Disclosure Statement by Applicant		Applicant Joseph A. Zupanick	
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	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner	Desig.	
Initial	ID	Document
		T.L. Logan, J.J. Schwoebel and D.M. Horner, "Application of Horizontal Drainhole Drilling
:	C112	Technology for Coalbed Methane Recovery," SPE/DOE 16409, Society of Petroleum Engineers/U.S.
		Department of Energy, Copyright 1997, 12 pages
		Samuel O. Osisanya and Robert F. Schaffitzel, "A Review of Horizontal Drilling and Completion
	C113	Techniques for Recovery of Coalbed Methane," SPE 37131, Society of Petroleum Engineers,
		Copyright 1996, 13 pages
	C114	S.D. Joshi, "A Review of Horizontal Well and Drainhole Technology," SPE 16868, Society of
		Petroleum Engineers, Copyright 1987, 17 pages
	C115	R. Bitto, A.B. Henderson and L. Broussard, "Recent Case Histories of New Well Applications for
		Horizontal Drilling," SPE 21262, Society of Petroleum Engineers, Copyright 1990, 12 pages
	C116	M.R. Konopczynski, John Hughes and J.E. Best, "A Novel Approach to Initiating Multi-Lateral
		Horizontal Wells," SPE/IADC 29385, Society of Petroleum Engineers, Copyright 1996, 11 pages
	C117	Kelly Falk and Craig McDonald, "An Overview of Underbalanced Drilling Applications in
		Canada," SPE 30129, Society of Petroleum Engineers, Copyright 1995, 9 pages
	C118	"Evolution Toward Simpler, Less Risky Multilateral Wells," WORLD OIL, prepared from paper
		SPE/IADC 67825 by Adam Pasicznyk, June 2001, 8 pages
	C119	"How Multilateral Boreholes Impact Ultimate Recovery Strategies," OFFSHORE, July 1997, 6 pages
	C120	"Trilateral Horizontal Wells Add 10 Million bbl for Unocal," OFFSHORE, December 1993, 2 pages
	C121	Nicholas P. Chironis, "New Borehole Techniques Offer Hope for Gassy Mines," COAL AGE, January
	CIZI	1973, 4 pages
	C122	A. Retnanto, T.P. Frick, C.W. Brand, and M.J. Economides, "Optimal Configurations of Multiple-
	0122	Lateral Horizontal Wells," SPE 35712, Society of Petroleum Engineers, Copyright 1996, 8 pages
	C123	T.L. Logan, "Horizontal Drainhole Drilling Techniques Used for Coal Seam Resource
	0120	Exploitation," SPE 18254, Society of Petroleum Engineers, Copyright 1988, 13 pages
	C124	David Hill, Eric Neme, Christine Enlig-Economides and Miguel Mollinedo, "Reentry Drilling Gives
	-	New Life to Aging Fields," OILFIELD REVIEW, Autumn 1996, 14 pages
	C125	R.L. Thoms and R.M. Gehle, "Feasibility of Controlled Solution Mining From Horizontal Wells,"
		Solution Mining Research Institute, October 24-27, 1993, 8 pages
	C126	"World's First Trilateral Horizontal Wells on Stream," Oil & Gas Journal, November 29, 1993, 2
		pages  None and A. Adema, Johnson J. Howelth and Bodney D. Molene, "Could add Made and Bodney of the
	C127	Margaret A. Adams, Jeanne L. Hewitt and Rodney D. Malone, "Coalbed Methane Potential of the
		Appalachians," SPE/DOE 10802, Society of Petroleum Engineers, Copyright 1982,10 pages
	C120	F.C. Schwerer and A.M. Pavone, "Effect of Pressure-Dependent Permeability on Well-Test Analyses and Long-Term Production of Methane From Coal Seams," SPE/DOE/GRI 12857, Society of
	C128	Petroleum Engineers, Copyright 1984, 10 pages
		Stephen Krickovic and J.D. Kalasky, "Methane Emission Rate Study in a Deep Pocahontas No. 3
	C129	Coalbed Mine in Conjunction With Drilling Degasification Holes in the Coalbed," RI-7703, Bureau
	(129	of Mines Report of Investigations/1972, United States Department of the Interior, 1972, 15 pages
-		H.H. Fields, Joseph Cervik, and T.W. Goodman, "Degasification and Production of Natural Gas
	C130	From an Air Shaft in the Pittsburgh Coalbed," RI-8173, Bureau of Mines Report of
	0130	Investigations/1976, United States Department of the Interior, 1976, 28 pages
•	L	investigations 1770, Officed States Department of the filterior, 1770, 20 pages

Examiner Signature	Date Considered	
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Desig. ID   Document
Gerald L. Finfinger and Joseph Cervik, "Drainage of Methane From the Overlying Pocahontas A Coalbed From Workings in the Pocahontas No. 3 Coalbed," RI-8359, Bureau of Mines Report Investigations/1979, United States Department of the Interior, 1979, 19 pages  Gerald L. Finfinger and Joseph Cervik, "Review of Horizontal Drilling Technology for Methane Drainage From U.S. Coalbeds," IC-8829, Bureau of Mines Information Circular/1980, United States Department of the Interior, 1980, 24 pages  C133 Andre P. Jourdan and Guy A. Baron, "Elf Drills 1,000 + Ft Horizontally," PETROLEUM ENGINEE INTERNATIONAL, September 1981, 4 pages  C134 P.F. Conti, "Controlled Horizontal Drilling," SPE/IADC 18708, Society of Petroleum Engineers Copyright 1989, 6 pages  C135 Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GAS JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages
C131 4 Coalbed From Workings in the Pocahontas No. 3 Coalbed," RI-8359, Bureau of Mines Report Investigations/1979, United States Department of the Interior, 1979, 19 pages  Gerald L. Finfinger and Joseph Cervik, "Review of Horizontal Drilling Technology for Methane Drainage From U.S. Coalbeds," IC-8829, Bureau of Mines Information Circular/1980, United States Department of the Interior, 1980, 24 pages  C133 Andre P. Jourdan and Guy A. Baron, "Elf Drills 1,000 + Ft Horizontally," PETROLEUM ENGINER INTERNATIONAL, September 1981, 4 pages  C134 P.F. Conti, "Controlled Horizontal Drilling," SPE/IADC 18708, Society of Petroleum Engineers Copyright 1989, 6 pages  C135 Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GAS JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages
Investigations/1979, United States Department of the Interior, 1979, 19 pages  Gerald L. Finfinger and Joseph Cervik, "Review of Horizontal Drilling Technology for Methane  C132 Drainage From U.S. Coalbeds," IC-8829, Bureau of Mines Information Circular/1980, United States Department of the Interior, 1980, 24 pages  C133 Andre P. Jourdan and Guy A. Baron, "Elf Drills 1,000 + Ft Horizontally," PETROLEUM ENGINER INTERNATIONAL, September 1981, 4 pages  C134 P.F. Conti, "Controlled Horizontal Drilling," SPE/IADC 18708, Society of Petroleum Engineers Copyright 1989, 6 pages  C135 Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GAS JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNA December 7, 1998, 7 pages
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C132 Drainage From U.S. Coalbeds," IC-8829, Bureau of Mines Information Circular/1980, United States Department of the Interior, 1980, 24 pages  C133 Andre P. Jourdan and Guy A. Baron, "Elf Drills 1,000 + Ft Horizontally," PETROLEUM ENGINER INTERNATIONAL, September 1981, 4 pages  C134 P.F. Conti, "Controlled Horizontal Drilling," SPE/IADC 18708, Society of Petroleum Engineers Copyright 1989, 6 pages  C135 Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GAS JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages
States Department of the Interior, 1980, 24 pages  C133 Andre P. Jourdan and Guy A. Baron, "Elf Drills 1,000 + Ft Horizontally," PETROLEUM ENGINEE INTERNATIONAL, September 1981, 4 pages  C134 P.F. Conti, "Controlled Horizontal Drilling," SPE/IADC 18708, Society of Petroleum Engineers Copyright 1989, 6 pages  C135 Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GAS JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages
C133 Andre P. Jourdan and Guy A. Baron, "Elf Drills 1,000 + Ft Horizontally," PETROLEUM ENGINEE INTERNATIONAL, September 1981, 4 pages  C134 P.F. Conti, "Controlled Horizontal Drilling," SPE/IADC 18708, Society of Petroleum Engineers Copyright 1989, 6 pages  C135 Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GAS JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages
C133 Andre P. Jourdan and Guy A. Baron, "Elf Drills 1,000 + Ft Horizontally," PETROLEUM ENGINEE INTERNATIONAL, September 1981, 4 pages  C134 P.F. Conti, "Controlled Horizontal Drilling," SPE/IADC 18708, Society of Petroleum Engineers Copyright 1989, 6 pages  C135 Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GAS JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages
C134 INTERNATIONAL, September 1981, 4 pages  P.F. Conti, "Controlled Horizontal Drilling," SPE/IADC 18708, Society of Petroleum Engineers Copyright 1989, 6 pages  C135 Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GAS JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages
C134  P.F. Conti, "Controlled Horizontal Drilling," SPE/IADC 18708, Society of Petroleum Engineers Copyright 1989, 6 pages  C135  Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136  Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137  D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GAS JOURNAL, October 16, 1995, 5 pages  C138  Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages
C135 Copyright 1989, 6 pages  Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy- Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & G JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages
C135 Armando R. Navarro, "Innovative Techniques Cut Costs in Wetlands Drilling," OIL & GAS JOURNAL, October 14, 1991, 4 pages  C136 Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy- Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & G JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNA December 7, 1998, 7 pages
C136  C136  Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  C137  D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & GJOURNAL, October 16, 1995, 5 pages  C138  Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages  A. L. Branch, et al. "Rampta Real-Time Monitoring Improves Oringco Prilling Efficiency" OIL
C136  Victor M. Luhowy and Peter D. Sametz, "Horizontal Wells Prove Effective in Canadian Heavy-Field," Oil & GAS JOURNAL, June 28, 1993, 6 pages  C137  D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," Oil & Gas Journal, October 16, 1995, 5 pages  Mike R. Chambers, "Junction Design Based on Operational Requirements," Oil & GAS JOURNAL December 7, 1998, 7 pages  A. I. Branch, et al. "Rampta Real-Time Monitoring Improves Oringco Drilling Efficiency" Oil & Gas Journal December 7, 1998, 7 pages
C136  Field," OIL & GAS JOURNAL, June 28, 1993, 6 pages  D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & Gas Journal, October 16, 1995, 5 pages  C138  Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNAL December 7, 1998, 7 pages  A. I. Branch, et al. "Rampta Real-Time Monitoring Improves Oringco Drilling Efficiency" OIL
C137 D. Lane Becker, "Project Management Improved Multiwell Shallow Gas Development," OIL & Gas Journal, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & Gas Journal December 7, 1998, 7 pages  A. I. Branch, et al. "Rampia Real-Time Monitoring Improves Oringco Drilling Efficiency" OIL
JOURNAL, October 16, 1995, 5 pages  C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNA December 7, 1998, 7 pages  A I. Branch, et al. "Rampia Real-Time Manitoring Improves Oringco Drilling Efficiency" OIL
C138 Mike R. Chambers, "Junction Design Based on Operational Requirements," OIL & GAS JOURNA December 7, 1998, 7 pages  A. I. Branch, et al. "Rampta Real-Time Monitoring Improves Oringco Prilling Efficiency." OIL
December 7, 1998, 7 pages  A. I. Branch, et al. "Remote Real-Time Maniforing Improves Oringco Drilling Efficiency" Old
A. I. Branch, et al. "Remote Real-Time Manitoring Improves Oringco Drilling Efficiency," Oll
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C139 A.S. Dialicit, et al., Nemote Retail into Monator ing Improves Or mote Drawing Egiptetency, Old Care Color and Care Care Care Care Care Care Care Care
GAS JOURNAL, May 28, 2001, 6 pages  D. Keith Murray, "Deep Coals Hold Big Part of Resource," THE AMERICAN OIL & GAS REPORT
May 2002, 8 pages  Nestor Rivera, et al., "Multilateral, Intelligent Well Completion Benefits Explored," OIL & GAS
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
JOURNAL, April 14, 2003, 10 pages  HANDBOOK ON COAL BED METHANE PRODUCED WATER: MANAGEMENT AND BENEFICIAL USE
ALTERNATIVES, prepared by ALL Consulting, July 2003, 321 pages
Nikola Maricic, "Parametric and Predictive Analysis of Horizontal Well Configurations for Cod
C143 Methane Reservoirs in Appalachian Basin," Thesis, West Virginia University, Department of
Petroleum and Natural Gas Engineering, 2004, 162 pages
Nikola Maricic, Shahab D. Mohaghegh, and Emre Artun, "A Parametric Study on the Benefits of
C144 Drilling Horizontal and Multilateral Wells in Coalbed Methane Reservoirs," SPE 96018, Societ
Petroleum Engineers, Copyright 2005, 8 pages
D.P. Schlick and J.W. Stevenson, "Methane Degasification Experience at Jim Walter's,"
C145 Proceedings of the Twelfth Annual Institute on Coal Mining Health, Safety and Research, Augu
25-27, 1981
C146 P.C. Thakur, "Optimum Methane Drainage in Gassy Coal Mines," 2003 SME Annual Meeting,
copyright 2003 by SME, 4 pages
Global Methane and the Coal Industry: A Two-Part Report on Methane Emissions from the Coa
C147 Industry and Coalbed Methane Recovery and Use, Coal Industry Advisory Board, International
Energy Agency, copyright 1994, 72 pages
C148 Pratt et al., U.S. Patent Application entitled "Cavity Well System," S/N 11/141,335, May 31, 20
. C148 19 pages

Examiner Signature	Date Considered	
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with		
next communication to applicant		